

TEAM BUILDING

National Science Teaching Standards

E. Science TECHNOLOGY

F. Science in PERSONAL and SOCIAL PERSPECTIVE

Objectives:

- To allow students to work together in a group to solve a problem.
- Students will realize the power of communication (verbal and non-verbal).

Background:

Problem solving, risk taking, cooperating, failing, and compromising are all words that adults know are key to being successful as an employee, a family member, and a person. Team building uses fun and challenging activities to demonstrate the power of working together. Students are forced out of their comfort zone and are challenged to take risks and change behavior. Each activity can be followed by debriefing using questions to see what students have learned and how it can be applied to real life situations.

The facilitator/leader of the activities is to set expectations and ensure the safety of the group. After describing the situation/activity, list the safety guidelines with each task. Let the group work through the problems with MINIMAL interference from you - or others watching the task. It is important that the group experiences the frustration phase and work out the situation by themselves as a group. This gives them a greater feeling of accomplishment and self-esteem. Remember this is not YOUR class - it is THEIR class.

As the facilitator, you have the power to give an overzealous individual laryngitis, or give a bully a "broken" arm or "injured" leg by tying a colored "flag" around their wrist or leg. This will help the group dynamics shift from an over-monopolizing authority figure to another individual.

Remember, every group is different. Play close attention to the dynamics and interactions so you can tailor your questions and comments to the groups' needs.

Multiple activities can go on at the same time with different leaders leading each one. Signal groups to switch after 15 minutes to go to another activity until each group has participated in each activity.

Pre Activity:

- Make a "T-chart" with students listing the positive attributes of working in a group and the negative attributes of working in a group. Have students identify what is the most difficult part of working in a group for them.
- Discuss as many occupations that you can in 2-3 minutes. Identify which ones are mostly working with a team rather than by yourself.

TEAM BUILDING ACTIVITIES: (in alphabetical order)

Activities feature characteristics of cooperation, communication, and trust.

All Aboard

- Objective: ■ To work together to fit your whole group onto the board square(s)
- Group Size: ■ 11-15 per board square (depends on size of players)
- Equipment: ■ 1-2 board squares approx. 25"x25"
- Procedure: ■ Suggested preface:

Titanic has just sunk, this is the floating debris, no one can touch the water.

 - All in group need to find a way to fit everyone on board(s) - at least 1 foot needs to be on the board and no body parts touching the "water"/ground.

(option: to start, put 2 boards together to give group first success in fitting everyone on, then challenge them by saying the waters have separated the boards and you need to find a way to fit the group on the two separate boards. At least 11-15 can fit on 1 board square.)

 - No stacking of people or putting people on shoulders
 - Let them try and fail. If frustrations mount, regroup and get the team to discuss what has worked or not worked so far.
 - Once the group(s) is on the board(s), they must stay on long enough to sing "Row Row Row Your Boat."
 - Toward the end of the activity time, you may want to encourage what ideas have been tried that would make them successful [e.g.: one option would be for each person to reach across and hold the hand of the person across from them and, each with 1 foot on the board, pull their weight out and balance each other].

Ants on a Log (aka Log Shuffle)

- Objective: ■ To work together to achieve directions - while maintaining balance on a log.
- Group Size: ■ Small-Large group (depending on log size)
- Equipment: ■ A fallen log big enough for a group to stand on. (Caution: log may be slippery if wet.)
- Procedure: ■ Participants stand on a fallen log that is level, all facing the same way.
 - Participants follow directions and exchange positions without touching the ground:

Directions can be: line up according to birth date or height
 - If a participant touches the ground, the participant starts over from the end (or entire group can start over.) (option: if participant touches the ground, they can sit out until the round is over.)

Cautions to group:

 - if you are losing your balance, step off to avoid pin wheeling arms and possibly bringing others off with you
 - be careful of stepping on fingers or toes when crossing over someone.
 - (option: Facilitator can time the activity and assign a 10-second penalty for every "tilt" (tilt = stepping off the log).)

After a completed attempt, the group processes what worked and didn't before another attempt.

Let the group decide how many times they want to try to beat their own record.
 - Facilitator can add limitations: deaf, mute, physical impairments. Mute works well, especially with older youth or adults, makes group find other ways to communicate.
 - This can be a very frustrating activity for younger participants, for those who are not focused, or are unable to provide physical support to maintain balance. Assess the group's capacity before setting the guidelines for this activity. Try to avoid compromising the guidelines after they are established.

Back to Back

- Objective: ■ Group must work together to achieve the task of standing up.
- Group Size: ■ 2-any (groups of 2, then 4, then whole group)
- Equipment: ■ None
- Procedure: ■ 2 people sit back to back. Interlock arms. Then try to stand up.
 - After pairs have been successful, put 4 people together, sitting back to back, and interlock arms. Then try to stand up.
 - After groups of 4 have been tried, and hopefully successful, have original partners get together and make 2 long lines facing back to back.
 - Everyone sit down.
 - Interlock arms of the person NEXT to you, not the one behind you. This creates two long lines of interlocked arms.
 - Then have the group stand up. (They will need to remember how to use each other's backs for support

Bottle Carry - with wood and strings

- Objective: ■ Work together through communication and cooperation to move bottle from one spot to another.
- Group Size: ■ Max groups of 8 (8 strings are on the bottle carry wood)
- Equipment: ■ Circular cut wood piece with 8 strings attached, 16 oz plastic pop bottle filled with water.
- Procedure: ■ Split group up into teams of 8 or less. While all together, give 3 Rules of activity.
- 3 Rules:
 1. Everyone must be involved.
 2. Everyone must hold onto a string.
 3. Team must move the bottle on the wood to another location designated by facilitator.
 - Let each team try. As soon as the bottle falls off the wood, the next team tries. This continues until one team is successful. (Usually the first round is quick until the teams start talking strategy and planning for their next turn.) Encourage them to watch each team and try to learn from them.
 - If team asks for a repeat of directions, repeat the 3 Rules.

Bottle Carry - with cans and bungies

- Objective: ■ Work together through communication and cooperation to move ball from one can to another.
- Group Size: ■ Max groups of 8 (8 black and white elastic strings are on the can carry bungee.)
- Equipment: ■ red/white bungee circle with 8 black and white elastic strings attached, 1 large coffee can, 1 smaller coffee can, 1 ball.
- Procedure: ■ Split group up into teams of 8 or less. While all together, give 3 Rules of activity.
- 3 Rules:
 1. Everyone must be involved.
 2. Everyone must hold onto an elastic string and cannot touch the cans or ball.
 3. Team must move the ball in the smaller can and put it into the larger can.
 - Put ball into smaller can. Set larger can about ~15 feet from the smaller can.
 - First team holds onto elastic strings and tries to work the red/white bungee around the smaller can to be able to "carry" the smaller can with the ball in it to the larger can.
 - Once they have the smaller can to the larger, then they work together to try to dump the ball into the larger can.
 - Let each team try. If the ball falls out before reaching the larger can, the next team tries. This continues until one team is successful. Encourage them to watch each team and try to learn from them.
 - If team asks for a repeat of directions, repeat the 3 Rules.

Contract

- Objective: ■ Build a community together and follow the items you agreed on for the community.
- Group Size: ■ Any
- Equipment: ■ Large sheet of paper or butcher paper, markers of all colors
- Procedure: ■ Have group define a contract (e.g. a signed agreement).
- Draw a circle on the large paper. Inform, items written/drawn inside is desirable for the community/group and items outside the circle are undesirable.
 - Group comes up with words that represent what they want in their community/group and write them inside the circle.
 - DO NOT LET OTHER INDIVIDUALS WRITE FOR A TEAM MATE.
 - BE CAREFUL WITH INAPPROPRIATE WORDS/DISCUSSION.
 - Can use warm colors (i.e.: reds, oranges, yellow) for inside the circle, and cool colors (greens, blues) for outside.
 - Point out what kind of community/group the group members are from. Discuss positive aspects vs. negative aspects.
 - Sometimes a characteristic of a community/group is easy to define, but hard to do.
 - The group may take their contract back with them and try to follow the contract the rest of the school year as a reminder of what a good working group is like, and what a bad working group is like.

Hoop-La

- Objective: ■ Work together to move the hoops "through" each person.
- Group Size: ■ Any

- Equipment: ■ At least 2 hula hoops of 2 different colors. (More hoops can be used for bigger groups.)
- Procedure: ■ Group holds hands and makes a circle with everyone facing in toward the circle.
 ■ Facilitator "breaks" the circle and puts one color hoop on the arm of one person then "reconnects" the circle.
 ■ Facilitator "breaks" the circle across from first break and puts another color hoop on the arm of one person then "reconnects" the circle.
 (If the group is large, more hoops can be added.)
 ■ Group must manipulate their bodies to pass one color hoop clockwise and the other color hoop counter-clockwise. No thumbs can be used to lift hoops - head, feet, arms, body in general.
 ■ Once all the hoops are returned to their starting point, the group was successful.
 ■ (option: can time the process, then have the team see if they can beat their time.)

Knot So Not

- Objective: ■ Cooperating as a group to get out of the knot.
- Group size: ■ 6-10 (in even numbers)
- Equipment: ■ None
- Procedure: ■ make a tight circle.
 ■ each person takes their right hand, reach across and hold someone else's right hand.
 ■ then each person takes their left hand and reach out and hold another person's left hand.
 (optional: Can choose a person to start a "pulse check" - he squeezes his right hand, then that person who's hand was just squeezed squeezes their other hand that's holding onto someone else, etc. This checks if you only have one circle. Sometimes this process confuses younger players.)
 ■ team can't let go of hands
 ■ the group tries to untangle themselves to make a regular circle (some people may be facing outward and some inward).
 (optional: facilitator may intervene and perform "knot aide" and be a connection to help with an untangle.)

Lap Sit

- Objective: ■ Understanding that everyone needs to work together, and if one person falls, everyone else falls, also. Their goal is to sit on each other's lap at the same time.
- Group Size: ■ Any
- Equipment: ■ None
- Procedure: ■ Have group make a tight circle, left arm in. Line up in that circle so the heel of the person in front of you touches your toe. Put hands on the person's shoulders in front of you.
 ■ On the count of three, guide the person in front of you to your lap.
 ■ Say: One - start thinking about it. Two - start guiding them to your lap. Three - everyone is seated.
 ■ Once everyone is seated, have them sing Row Row Row Your Boat.
 (option: once everyone is seated, and have sang, and they seem stable, challenge the group to try and walk in a circle as one unit.)
 ■ Have everyone stand on the count of three.
 (optional: can discuss with group the idea of habitat and how each part has a dependence on another part and if one part "falls," then the habitat can begin to fall apart. Facilitator can assign participants to represent each element for survival: food, water, shelter, and space (e.g.: in a group of 20, 4 people have a special role). Then, once the group is "seated," remove one element from the circle and see how it affects the entire habitat. If one doesn't change the dynamics, take out another element.)

Marble Roll

- Objective: ■ Everyone needs to work together and communicate to achieve the goal of continuously allowing the marble to roll.
- Group Size: ■ At least 4 per team, up to as many plastic tubes you have. Usually 2 teams.
- Equipment: ■ Plastic tubes of various lengths and diameter, 1-2 marbles
- Procedure: ■ Separate group into 2 teams (team size depends on the number of plastic pipe pieces available).
 ■ Let team members choose a piece of plastic pipe.
 ■ Have team members line up in 2 parallel lines. Give plenty of room between teams.
 Goal: Each team must move a marble from point A to point B. When the marble is in "your" pipe, you cannot move your feet. The marble cannot be stopped or slowed by placing anything over the open end of a pipe, other than the open end of another pipe.
 ■ Inform teams a marble will be placed into the first tube and they need to keep it rolling

through all tubes on their team, continuing to about 50 feet. Once the marble has gone through the first tube, that player runs to the end of the line to continue the marble rolling, as does the 2nd player, 3rd, etc., until the team reaches its 50' goal.

- Facilitator to place the marbles in the first tube of each team at the same time, then watch the fun.
- If the marble falls out of a tube or is touched, that team needs to start over from the beginning.
- Once the teams get the hang of it, challenge them to see how far they can keep going. They can "snake" around versus continuing in a straight line.

OR

When 1 team "wins" by successfully reaching point B, have them join with the other team - but now alternate the 2 colors of pipe (this integrates the teams to reach the goal). (Sometimes this activity can be difficult and frustrating for younger children.)

Mission to Mars

- Objective: ■ Trusting others' directions to obtain the object.
- Group Size: ■ 4 participants per group (Persons A, B, C, D)
- Equipment: ■ 2 blindfolds per group, 1 object (tennis ball, marker, etc.) to throw per group.
- Procedure: ■ Preface: You are on a mission to Mars. Each person in the group has a role: Person A is the communication satellite in space; Person B is mission control on Earth; Person C is the Mars rover and can only do what the communication satellite (Person A) says; Person D is protection for the rover. It is best to read the following directions and use 4 people and example the process before the group(s) begins.
- Persons A and B will be a subgroup:
 - Person A is blindfolded and CAN speak
 - Person B is NOT blindfolded and CANNOT speak
- Person B will be the one communicating through signals (taps and hand motions) to Person A. Person A will be the one speaking/giving directions to Person C on how to find the object. (Give Persons A and B a few minutes to agree on what the signals will be before beginning.)
- Persons C and D will be a subgroup:
 - Person C is blindfolded and must search for the object.
 - Person D is NOT blindfolded, will toss/hide the object to be found, and will guide Person C.
 - A and C will put on their blind folds.
 - D will toss the object.
 - B will "signal" A on how to direct C to find the object. A will call out verbal directions to C.
 - D will keep C safe (from running into trees, etc.) while C is listening to A's directions and searching for the object. D will not lead C, in any way, toward object but merely keep C from getting hurt.

Nail Balance

- Objective: ■ To balance an even number of nails on the head of one nail.
- Group Size: ■ Any - This can be done individually or in a group.
- Equipment: ■ One nail pounded into board, an even number of nails to balance (usually 6-8 works best).
- Procedure: ■ Participant is given the challenge to find a way to balance all the loose nails (6-8) onto the head of the nail pounded into the board.

Path of Life (aka Frogger)

- Objective: ■ Having patience for others is difficult to achieve, but once accomplished, everyone becomes successful by walking the "correct" path. Whole group must cross the lily pads with a certain sequence without making a mistake.
- Group Size: ■ Any
- Equipment: ■ 12-15 "lily pads" cutouts, noise making toy (bird, frog) or whistle.
- Procedure: ■ Facilitator sets out lily pads approx 4-5 across and makes rows/columns.
- Show participants possible directions they can travel on the lily pads: left, diagonal left, forward, diagonal right, and right. NO backwards or jumping. They must cross the lily pads one person at a time.
 - Facilitator secretly creates a pattern in their mind for the participants to follow as they cross the lily pads by stepping from one pad to another pad.
 - Participants line up. First person steps on a pad, if that pad is correct, no whistle/sound. They take another step. If correct, they continue, until they step on a pad not of the facilitator's pattern and hear a whistle/sound from the facilitator. They return to the end of the line. The next person in line tries to remember which pads were "correct" and tries to make another choice where the first person made a

mistake so they can keep going until they reach the other end of the pads. If/when they make a mistake, back to the end of the line. Participants CANNOT tell other teammates where to step.

- If 5 people have crossed successfully and the 6th person makes a mistake in the pattern, all go to the end of the line and start over until everyone has successfully followed the pattern.

- The activity continues until everyone has made it to the other side of the lily pads.

Power Triangle

- Objective:
 - Communicate, cooperate, and brainstorm to find a way to transport a team member on the triangle from one place to another.
- Group Size:
 - 6-9+ (with upper elementary, use 8 or more)
- Equipment:
 - Power Triangle (large wooden triangle with ropes attached)
- Procedure:
 - Team chooses one member in their group to be the one they will transport using the triangle. That one team member is the only one who may touch the wood of the triangle - but they cannot touch the ground. No other team members may touch the wood.
 - The other team members have to hold onto a rope, and figure out a way to move the triangle with their teammate on it, from one place to another.
 - Safety of member being transported is main concern of entire group (may use spotter with younger participants)
 - There are multiple ways to achieve this. Challenge teams to try different ways.

String-A-Long

- Objective:
 - Communicate and cooperate to create shapes out of string/rope as a group.
 - Group Size:
 - Small rope circles = approx 3-6 people
 - Large rope circles = approx 7-15 people
 - Equipment:
 - Rope - in small circles OR Rope - in large circles, blindfolds for each participant.
 - Procedure:
 - Participants stand in a circle holding onto the string with both hands, facing into the circle.
 - Participants put on their blindfolds.
 - Instruct participants:
 - They may NOT talk to each other.
(option: You may start out letting group talk for a few shapes, then ask if they're ready for a challenge, then tell them they will need to create the next shapes without verbally communicating. If some group members are very dominant, which may happen when you mix youth and adults, you can "stifle" them by saying only those under 15 may talk, or only those over 30 may talk, or make all mute.)
 - They do not have to hold tightly onto the string/rope. They may slide their hands back and forth, but do not let go completely. Both hands must remain touching the string/rope.
 - Facilitator will give them some tasks to perform (make shapes with the string/rope) as a group. Once they believe they have achieved the task, have them call the facilitator over to check it. Then the facilitator will have the participants use one hand to remove their blindfold, while still holding the shape of the rope, to see for themselves how they did.
 - Tasks:
 - Have group make the string/rope into as close to a perfect * circle as they can.
(Allow several minutes for each shape the group is to make.)
 - Now change it into:
 - * a square
 - a rectangle (twice as long as it is wide)
 - * a triangle
 - a right triangle
 - * two triangles
 - a pentagon (5 sided figure)
 - * a star
- * = usually takes about 15 minutes to get through these.
(Other shapes/tasks may be: an equilateral triangle; a trapezoid; a high shape; a low shape; a long shape; a short shape; a soft shape; a hard shape; a smooth shape; a ragged shape; a high and low shape; a fat, sharp shape; a long low soft and hard shape.

String Thing

- Objective:
 - Disciplined concentration: to realize "mind over matter."
- Group Size:
 - Any
- Equipment:
 - ~18" of string or thin fishing line, 1weight (fishing sinker or bead) attached to one end

- of the string/line.
- Procedure:
- Have each participant obtain string and weight.
 - Have participants wrap the string around one finger tip (loosely to maintain circulation).
 - Leave approximately 10-12 inches between your finger and the weight.
 - Hang the weight over a stationary object (their knee, chair, table, etc.)
 - Have participants relax and imagine the following situations. Give time between each direction.
 - The weight hanging still.
 - The weight swinging toward them and away from them.
 - The weight hanging still (they will be amazed by now).
 - The weight swinging clockwise.
 - The weight hanging still.
 - The weight swinging counter-clockwise.

Trust Walk

- Objective:
- Group Size:
- Equipment:
- Procedure:
- Self evaluate levels of personal trust of others in group.
 - Minimum- 2, put participants in pairs.
 - 1 blind fold per pair.
 - Choose two volunteers to model appropriate guide skills:
 - One will be blindfolded, the other will guide the blindfolded person around.
 - Left hand ON left shoulder, right hand IN right hand. Be specific with directions.
 - Option: have girls lead boys first, then boys lead girls = maturity issues.
 - Have pairs move across a level area with few obstacles.
 - Have blindfolded person discuss how far they think they have traveled before removing the blindfold (participant usually perceives distance to be much greater than they traveled).

Vortex

- Objective:
- Group Size:
- Equipment:
- Procedure:
- Cooperation.
 - Any
 - None
 - Everyone makes a line and holds hands.
 - Facilitator chooses which end will be the leader. [For the 1st time, facilitator may want to be leader to example the activity.] The leader will begin leading the group along into a circle, continuing in a circular pattern, "wrapping" the group tighter.
 - Once leader gets toward the center of the circle, with the others still following, the leader stops and starts inverting the circle (winding his way out in a circle pattern, with the others following).
 - Don't let go of hands.
 - Start slowing down as the leader is "out" of the circular hubbub and has brought the group to a full circle again, then to their original line.

Vortex Example



Walking Logs (aka Trolleys)

- Objective:
- Group Size:
- Equipment:
- Procedure:
- Work together to move as one unit on the walking logs.
 - minimum 2, maximum 6, people per set of walking logs
 - 2 walking logs (large wooden 6"x6" boards with 6 ropes on each board as handles for each person to grab)
 - Give team the challenge to "walk the logs" by standing on the logs and hanging onto the ropes and going from one point to another.
 - Their feet must remain on the logs.
- (If you have many participants and some waiting to do the activity, challenge them to pay special attention to what is working and what is not for when they try it.)
- CAUTION: THIS ACTIVITY MAY BRING ISSUES TO A HEAD QUICKLY! You may choose to stop and discuss what do they feel is working and/or not working and how can they work toward success.
 - After they master the act, have them try walking backwards, sideways, or do it without verbal communication.

Warp Speed

- Objective:
- Group Size:
- Equipment:
- Procedure:
- Everyone's name is said and everyone touches the ball
 - Any
 - A small ball (about the size of a tennis ball)
 - Everyone stands in a circle.

- The ball starts with the leader, who makes the first throw, and the ball ends with the leader.
- Throw the ball to someone across from you. As you throw the ball, you must call out that person's name you are throwing it to before you throw it. Remember who you have thrown it to, and who throws it to you for the next round, which you will do in the same order once more.
- After one trip around, the facilitator will time the next round. See if they can cut the time in half. Repeat. (option: Have the group brainstorm ways to cut time. Try suggestions, while timing the activity, to see if there is improvement. Go through as many productive suggestions as the group wants to try until "warp speed.")

Whirlygig

- Objective: ■ Cooperate as a group to invert the circle.
- Group Size: ■ Any
- Equipment: ■ None
- Procedure:
 - Hold hands and create a circle with everyone facing toward the center of the circle.
 - Have the group brainstorm ideas on how to invert the circle, then have them try the suggestions.
 - Continue holding hands while working to invert the circle (make everyone face outward, instead of in toward the center of the circle).
 - No one can be twisted and no one can let go of hands.

Post Activity:

- Continue trying more these activities back a school. Assign team projects in curricular areas.

Post Discussion:

- | | |
|---|---|
| 1. What was the hardest thing about this activity? | 11. What was the easiest thing about this activity? |
| 2. What did you learn about cooperation? Communication? Teamwork? | 12. What did you learn about yourself? |
| 3. What were the rewards of cooperation? Communication? Teamwork? | 13. What did you learn about others? |
| 4. What did you do today that you are particularly proud of? Why? | 14. What qualities do you see in a good leader? |
| 5. How can you use what you learned today in other life situations? | 15. What is your trust level for this group? |
| 6. How did cooperation/communication/teamwork lead to success? | |
| 7. What are things that could be done to improve your performance in this activity? | |
| 8. What were problems associated with cooperation? Communication? Teamwork? | |
| 9. What do focus and commitment have to do with working together? | |
| 10. When will you need to cooperate (or communicate, or work as a team) in your life? | |